Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of work:- Modified Estimate for Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Sl No	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.								
	For RCC DRAIN								
	Balaji layout road South side (From 10th Cross BHEL Layout)		1	153.10	1.10	1.15	193.67		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	1.10	1.15	200.76		
	2nd Cross Road West Side (From Balaji Layout North Side Road)		1	24.50	1.10	1.00	26.95		
	2nd Cross Road East Side (From Balaji Layout North Side Road)		1	24.50	1.10	1.00	26.95		
	2nd Cross Road West Side (From Balaji Layout South Side Road)		1	48.50	1.10	1.00	53.35		
	2nd Cross Road East Side (From Balaji Layout South Side Road)		1	48.50	1.10	1.00	53.35		
	3rd Cross Road West Side (From Balaji Layout North Side Road)		1	12.80	1.10	1.00	14.08		
	3rd Cross Road East Side (From Balaji Layout North Side Road)		1	13.00	1.10	1.00	14.30		
	3rd Cross Road West Side (From Balaji Layout South Side Road)		1	31.50	1.10	1.00	34.65		
	3rd Cross Road East Side (From Balaji Layout South Side Road)		1	31.50	1.10	1.00	34.65		
	4th Cross Road West Side (From Balaji Layout Road)		1	35.50	1.10	1.00	39.05		
	4th Cross Road East Side (From Balaji Layout Road)		1	35.50	1.10	1.00	39.05		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	th Cross Road West Side (From Balaji Layout Road)		1	33.80	1.10	1.00	37.18		
	5th Cross Road East Side (From Balaji Layout Road)		1	33.20	1.10	1.00	36.52		
	6th Cross Road West Side (From Balaji Layout North Side Road)		1	56.60	1.10	1.00	62.26		
	6th Cross Road West Side (From Balaji Layout South Side Road)		1	32.40	1.10	1.00	35.64		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	1.10	1.10	365.42		
	For KERB								
	Balaji layout road South Side (From 10th Cross BHEL Layout)		1	153.10	0.20	0.20	6.12		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	0.20	0.20	6.35		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	0.20	0.20	12.08		
	For RCC CULVERT								
	Balaji Layout Road North Side(From 10th Cross BHEL Layout		2	5.80	1.40	1.10	17.86		
	Balaji Layout Road South Side(From 10th Cross BHEL Layout)		4	5.40	1.40	1.00	30.24		
							1340.48	211.79	283900.89
2	KSRRB M2900-1. Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per the specification								
	For RCC DRAIN								
	Balaji layout road South side (From 10th Cross BHEL Layout)		1	153.10	1.10	0.15	25.26		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	1.10	0.15	26.19		
	2nd Cross Road West Side (From Balaji Layout North Side Road)		1	24.50	1.10	0.15	4.04		
	2nd Cross Road East Side (From Balaji Layout North Side Road)		1	24.50	1.10	0.15	4.04		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	nd Cross Road West Side (From Balaji Layout South Side Road)		1	48.50	1.10	0.15	8.00		
	2nd Cross Road East Side (From Balaji Layout South Side Road)		1	48.50	1.10	0.15	8.00		
	3rd Cross Road West Side (From Balaji Layout North Side Road)		1	12.80	1.10	0.15	2.11		
	3rd Cross Road East Side (From Balaji Layout North Side Road)		1	13.00	1.10	0.15	2.15		
	3rd Cross Road West Side (From Balaji Layout South Side Road)		1	31.50	1.10	0.15	5.20		
	3rd Cross Road East Side (From Balaji Layout South Side Road)		1	31.50	1.10	0.15	5.20		
	4th Cross Road West Side (From Balaji Layout Road)		1	35.50	1.10	0.15	5.86		
	4th Cross Road East Side (From Balaji Layout Road)		1	35.50	1.10	0.15	5.86		
	5th Cross Road West Side (From Balaji Layout Road)		1	33.80	1.10	0.15	5.58		
	5th Cross Road East Side (From Balaji Layout Road)		1	33.20	1.10	0.15	5.48		
	6th Cross Road West Side (From Balaji Layout North Side Road)		1	56.60	1.10	0.15	9.34		
	6th Cross Road West Side (From Balaji Layout South Side Road)		1	32.40	1.10	0.15	5.35		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	1.10	0.15	49.83		
	For KERB								
	Balaji layout road South Side (From 10th Cross BHEL Layout)		1	153.10	0.20	0.10	3.06		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	0.20	0.10	3.17		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	0.20	0.10	6.04		
	For RCC CULVERT								

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	alaji Layout Road North ide(From 10th Cross BHEL Layout		2	5.80	1.40	0.15	2.44		
	Balaji Layout Road South Side(From 10th Cross BHEL Layout)		4	5.40	1.40	0.15	4.54		
							196.90	4479.56	882025.36
3	KSRRB M2200-6. Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in postion, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification.								
	Consider 60kg/cum for drain		1	374.39		0.06	22.46		
	Consider 90kg/cum for culvert		1	20.88		0.09	1.88		
							24.34	72326.98	1760657.121
4	Providing and laying plain/reinforced cement concrete for side drains wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs with 29mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregate at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications								
	For RCC DRAIN RAFT								
	Balaji layout road South side (From 10th Cross BHEL Layout)		1	153.10	1.00	0.15	22.97		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	1.00	0.15	23.81		
	2nd Cross Road West Side (From Balaji Layout North Side Road)		1	24.50	1.00	0.15	3.68		
	2nd Cross Road East Side (From Balaji Layout North Side Road)		1	24.50	1.00	0.15	3.68		
	2nd Cross Road West Side (From Balaji Layout South Side Road)		1	48.50	1.00	0.15	7.28		
	2nd Cross Road East Side (From Balaji Layout South Side Road)		1	48.50	1.00	0.15	7.28		
	3rd Cross Road West Side (From Balaji Layout North Side Road)		1	12.80	1.00	0.15	1.92		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	d Cross Road East Side (From Balaji Layout North Side Road)		1	13.00	1.00	0.15	1.95		
	3rd Cross Road West Side (From Balaji Layout South Side Road)		1	31.50	1.00	0.15	4.73		
	3rd Cross Road East Side (From Balaji Layout South Side Road)		1	31.50	1.00	0.15	4.73		
	4th Cross Road West Side (From Balaji Layout Road)		1	35.50	1.00	0.15	5.33		
	4th Cross Road East Side (From Balaji Layout Road)		1	35.50	1.00	0.15	5.33		
	5th Cross Road West Side (From Balaji Layout Road)		1	33.80	1.00	0.15	5.07		
	5th Cross Road East Side (From Balaji Layout Road)		1	33.20	1.00	0.15	4.98		
	6th Cross Road West Side (From Balaji Layout North Side Road)		1	56.60	1.00	0.15	8.49		
	6th Cross Road West Side (From Balaji Layout South Side Road)		1	32.40	1.00	0.15	4.86		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	1.00	0.15	45.30		
	For RCC DRAIN WALL								
	Balaji layout road South side (From 10th Cross BHEL Layout)		2	153.10	0.15	0.80	36.74		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		2	158.70	0.15	0.80	38.09		
	2nd Cross Road West Side (From Balaji Layout North Side Road)		2	24.50	0.15	0.70	5.15		
	2nd Cross Road East Side (From Balaji Layout North Side Road)		2	24.50	0.15	0.60	4.41		
	2nd Cross Road West Side (From Balaji Layout South Side Road)		2	48.50	0.15	0.60	8.73		
	2nd Cross Road East Side (From Balaji Layout South Side Road)		2	48.50	0.15	0.60	8.73		

Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
rd Cross Road West Side (From Balaji Layout North Side Road)		2	12.80	0.15	0.60	2.30		
3rd Cross Road East Side (From Balaji Layout North Side Road)		2	13.00	0.15	0.60	2.34		
3rd Cross Road West Side (From Balaji Layout South Side Road)		2	31.50	0.15	0.60	5.67		
3rd Cross Road East Side (From Balaji Layout South Side Road)		2	31.50	0.15	0.60	5.67		
4th Cross Road West Side (From Balaji Layout Road)		2	35.50	0.15	0.60	6.39		
4th Cross Road East Side (From Balaji Layout Road)		2	35.50	0.15	0.60	6.39		
5th Cross Road West Side (From Balaji Layout Road)		2	33.80	0.15	0.60	6.08		
5th Cross Road East Side (From Balaji Layout Road)		2	33.20	0.15	0.60	5.98		
6th Cross Road West Side (From Balaji Layout North Side Road)		2	56.60	0.15	0.60	10.19		
6th Cross Road West Side (From Balaji Layout South Side Road)		2	32.40	0.15	0.60	5.83		
BHEL Layout 9th Cross (From 1st Main Rd)		2	302.00	0.15	0.60	54.36		
For RCC CULVERT RAFT								
Balaji Layout Road North Side(From 10th Cross BHEL Layout		2	5.80	1.40	0.25	4.06		
Balaji Layout Road South Side(From 10th Cross BHEL Layout)		4	5.40	1.40	0.25	7.56		
For RCC CULVERT WALL								
Balaji Layout Road North Side(From 10th Cross BHEL Layout		4	5.80	0.25	0.48	2.78		
Balaji Layout Road South Side(From 10th Cross BHEL Layout)		8	5.40	0.25	0.60	6.48		
						395.28	7070.20	2794673.31

Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
Supplying and fixing precast reinforced concrete slab 10cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges , labour charges inclusive of cost of cost of all materials (data Rate enclosed)								
For RCC DRAIN COVERING SLAB								
Balaji layout road South side (From 10th Cross BHEL Layout)		1	99.50	0.90		89.55		
Balaji layout road North Side (From 10th Cross BHEL Layout)		1	153.00	0.90		137.70		
2nd Cross Road West Side (From Balaji Layout North Side Road)		1	24.50	0.90		22.05		
2nd Cross Road East Side (From Balaji Layout North Side Road)		1	24.50	0.90		22.05		
2nd Cross Road West Side (From Balaji Layout South Side Road)		1	48.50	0.90		43.65		
2nd Cross Road East Side (From Balaji Layout South Side Road)		1	48.50	0.90		43.65		
3rd Cross Road West Side (From Balaji Layout North Side Road)		1	12.80	0.90		11.52		
3rd Cross Road East Side (From Balaji Layout North Side Road)		1	13.00	0.90		11.70		
3rd Cross Road West Side (From Balaji Layout South Side Road)		1	31.50	0.90		28.35		
3rd Cross Road East Side (From Balaji Layout South Side Road)		1	31.50	0.90		28.35		
4th Cross Road West Side (From Balaji Layout Road)		1	35.50	0.90		31.95		
4th Cross Road East Side (From Balaji Layout Road)		1	35.50	0.90		31.95		
5th Cross Road West Side (From Balaji Layout Road)		1	15.20	0.90		13.68		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	th Cross Road East Side (From Balaji Layout Road)		1	33.20	0.90		29.88		
	6th Cross Road West Side (From Balaji Layout North Side Road)		1	31.40	0.90		28.26		
	6th Cross Road West Side (From Balaji Layout South Side Road)		1	32.40	0.90		29.16		
	Missing slabs		1	15.00	0.90		13.50		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	302.00	0.90		271.80		
							888.75	2337.00	2077008.75
6	Providing and laying Pre Cast Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)								
	For RCC CULVERT COVERING SLAB								
	Balaji Layout Road North Side(From 10th Cross BHEL Layout		2	5.80	1.20		13.92		
	Balaji Layout Road South Side(From 10th Cross BHEL Layout)		4	5.40	1.20		25.92		
							39.96	5418.00	216503.28
7	Providing and fixing pre cast solid concrete kerb stones of size 450x200x400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting ete., complete.								
	For KERB								
	Balaji layout road South Side (From 10th Cross BHEL Layout)		1	153.10			153.10		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70			158.70		
	Deduction of Kerbs due to Trees, Poles and Shoulders		1.00	-3.00			-3.00		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	311.50			311.50		
							620.30		
							1378.00	477.00	657306.00
8	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.								
	For KERB								

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	alaji layout road South Side (From 10th Cross BHEL Layout)		1	153.10	0.30		45.93		
	Balaji layout road North Side (From 10th Cross BHEL Layout)		1	158.70	0.30		47.61		
	Deduction of Kerbs due to Trees, Poles and Shoulders		1.00	-3.00	0.30		-0.90		
	BHEL Layout 9th Cross (From 1st Main Rd)		1	311.50	0.30		93.45		
							186.09	**84.80**	**15,780.43**
9	KSRRB M300-14. Excavation for Road Way in Hard rock by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.								
		Cum							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20	0.40	356.96		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00	0.40	192.96		
	Continue		1	29.50	8.50	0.40	100.30		
	Continue		1	127	5.50	0.40	279.40		
	9th Cross Rd(From Main Rd)		1	68.00	6.90	0.40	187.68		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50	0.40	418.60		
	10th Cross Rd(From Main Rd)		1	60.80	6.60	0.40	160.51		
	11th Cross Rd(From Main Rd)		1	59.00	6.10	0.40	143.96		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80	0.40	104.40		
	12th Cross Rd(From Main Rd)		1	56.00	5.80	0.40	129.92		
							2074.69	43.46	**90166.11**
	Approved Rate Rs.=	43.46							
10	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.								
		Sqm							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20		892.40		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00		482.40		
	Continue		1	29.50	8.50		250.75		
	Continue		1	127	5.50		698.50		
	9th Cross Rd(From Main Rd)		1	68.00	6.90		469.20		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50		1046.50		
	10th Cross Rd(From Main Rd)		1	60.80	6.60		401.28		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	th Cross Rd(From Main Rd)		1	59.00	6.10		359.90		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80		261.00		
	12th Cross Rd(From Main Rd)		1	56.00	5.80		324.80		
							5186.73	6.36	**32987.60**
	Approved Rate Rs.=	6.36							
11	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								
		Cum							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20	0.230	205.25		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00	0.230	110.95		
	Continue		1	29.50	8.50	0.230	57.67		
	Continue		1	127	5.50	0.230	160.66		
	9th Cross Rd(From Main Rd)		1	68.00	6.90	0.230	107.92		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50	0.230	240.70		
	10th Cross Rd(From Main Rd)		1	60.80	6.60	0.230	92.29		
	11th Cross Rd(From Main Rd)		1	59.00	6.10	0.230	82.78		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80	0.230	60.03		
	12th Cross Rd(From Main Rd)		1	56.00	5.80	0.230	74.70		
							1192.95	2001.28	**2387422.77**
	Approved Rate Rs.=	2001.28							
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								
		Sqm							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20		892.40		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00		482.40		
	Continue		1	29.50	8.50		250.75		
	Continue		1	127	5.50		698.50		
	9th Cross Rd(From Main Rd)		1	68.00	6.90		469.20		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50		1046.50		
	10th Cross Rd(From Main Rd)		1	60.80	6.60		401.28		
	11th Cross Rd(From Main Rd)		1	59.00	6.10		359.90		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80		261.00		

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	12th Cross Rd(From Main Rd)		1	56.00	5.80		324.80		
							5186.73	33.92	**175933.88**
	Approved Rate Rs.=	33.92							
13	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications.								
		Sqm							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20		892.40		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00		482.40		
	Continue		1	29.50	8.50		250.75		
	Continue		1	127	5.50		698.50		
	9th Cross Rd(From Main Rd)		1	68.00	6.90		469.20		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50		1046.50		
	10th Cross Rd(From Main Rd)		1	60.80	6.60		401.28		
	11th Cross Rd(From Main Rd)		1	59.00	6.10		359.90		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80		261.00		
	12th Cross Rd(From Main Rd)		1	56.00	5.80		324.80		
							5186.73	5.30	**27489.67**
	Approved Rate Rs.=	5.30							
14	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications								
		Sqm							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20		892.40		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00		482.40		
	Continue		1	29.50	8.50		250.75		
	Continue		1	127	5.50		698.50		
	9th Cross Rd(From Main Rd)		1	68.00	6.90		469.20		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50		1046.50		
	10th Cross Rd(From Main Rd)		1	60.80	6.60		401.28		
	11th Cross Rd(From Main Rd)		1	59.00	6.10		359.90		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80		261.00		
	12th Cross Rd(From Main Rd)		1	56.00	5.80		324.80		
							5186.73	12.72	**65975.21**
	Approved Rate Rs.=	12.72							

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	SRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat & including lead, lift and cost of all materials, labour, HOM complete as per specifications. 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4% VG-30 Bitumen								
		Cum							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20	0.05	44.62		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00	0.05	24.12		
	Continue		1	29.50	8.50	0.05	12.54		
	Continue		1	127	5.50	0.05	34.93		
	9th Cross Rd(From Main Rd)		1	68.00	6.90	0.05	23.46		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50	0.05	52.33		
	10th Cross Rd(From Main Rd)		1	60.80	6.60	0.05	20.06		
	11th Cross Rd(From Main Rd)		1	59.00	6.10	0.05	18.00		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80	0.05	13.05		
	12th Cross Rd(From Main Rd)		1	56.00	5.80	0.05	16.24		
							259.34	7428.48	**1926476.00**
	Approved Rate Rs.=	7428.48							
16	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)								
		Cum							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20	0.04	35.70		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00	0.04	19.30		
	Continue		1	29.50	8.50	0.04	10.03		
	Continue		1	127	5.50	0.04	27.94		
	9th Cross Rd(From Main Rd)		1	68.00	6.90	0.04	18.77		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50	0.04	41.86		
	10th Cross Rd(From Main Rd)		1	60.80	6.60	0.04	16.05		
	11th Cross Rd(From Main Rd)		1	59.00	6.10	0.04	14.40		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80	0.04	10.44		
	12th Cross Rd(From Main Rd)		1	56.00	5.80	0.04	12.99		
							207.47	8831.92	**1832351.38**

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Approved Rate Rs.=	8831.92							
	SRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								
		Sqm							
	BHEL Layout								
	1st Main Rd		2	97.00	0.10		19.40		
	8th Cross Rd(From Main Rd upto culvert)		2	80.40	0.10		16.08		
	Continue		2	29.50	0.10		5.90		
	Continue		2	127	0.10		25.40		
	9th Cross Rd(From Main Rd)		2	68.00	0.10		13.60		
	9th Cross Rd(From 1st Main Rd)		2	161.00	0.10		32.20		
	10th Cross Rd(From Main Rd)		2	60.80	0.10		12.16		
	11th Cross Rd(From Main Rd)		2	59.00	0.10		11.80		
	11th Cross Rd(From 1st Main Rd)		2	45.00	0.10		9.00		
	12th Cross Rd(From Main Rd)		2	56.00	0.10		11.20		
							156.74	454.74	**71275.95**
	Approved Rate Rs =	454.74							
E1	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC,spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.								
		Cum							
	BHEL Layout								
	1st Main Rd		1	97.00	9.20	0.15	133.86		
	8th Cross Rd(From Main Rd upto culvert)		1	80.40	6.00	0.15	72.36		
	Continue		1	29.50	8.50	0.15	37.61		
	Continue		1	127	5.50	0.15	104.78		
	9th Cross Rd(From Main Rd)		1	68.00	6.90	0.15	70.38		
	9th Cross Rd(From 1st Main Rd)		1	161.00	6.50	0.15	156.98		
	10th Cross Rd(From Main Rd)		1	60.80	6.60	0.15	60.19		
	11th Cross Rd(From Main Rd)		1	59.00	6.10	0.15	53.99		
	11th Cross Rd(From 1st Main Rd)		1	45.00	5.80	0.15	39.15		
	12th Cross Rd(From Main Rd)		1	56.00	5.80	0.15	48.72		
							778.01	1994.92	**1552066.71**
	Basic Rate Rs.=	1882.00							
	6% AW Rs.=	112.92							
	Sub Total Rate Rs.=	1994.92							

	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
E2	SRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.								
		Nos							
	BHEL Layout								
	1st Main Rd		3	13.00			39.00		
	8th Cross Rd(From Main Rd upto culvert)		3	11.00			33.00		
	Continue		3	4.00			12.00		
	Continue		2	18.00			36.00		
	9th Cross Rd(From Main Rd)		2	9.00			18.00		
	9th Cross Rd(From 1st Main Rd)		2	23.00			46.00		
	10th Cross Rd(From Main Rd)		2	10.00			20.00		
	11th Cross Rd(From Main Rd)		2	8.00			16.00		
	11th Cross Rd(From 1st Main Rd)		2	6.00			12.00		
	12th Cross Rd(From Main Rd)		2	8.00			16.00		
							248.00	357.22	**88590.56**
	Basic Rate Rs.=	337.00							
	6% AW Rs.=	20.22							
	Sub Total Rate Rs.=	357.22							
								Total Construction Cost	**16938590.99**
								Miscellaneous & Rounding Off	**1,091.01**
								Total	**16939682.00**

Technical Sanction
Accorded For RS 16,939,682/-
Head of A/C D.8745
CER NO :...70..... Dt:...05.02.2023

TA CE (YNK)

Assistant Engineer

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ಯಲಹಂಕ ಉಪವಿಭಾಗ
ಬ.ಬ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106
Asst. Executive Engineer

Executive Engineer